June 2, 1998

Joyce M. Dodrill
Assistant Director of Law
City of Cleveland
601 Lakeside Avenue, Room No. 106
Cleveland Ohio 44114-1077

RE: Master Metals - response to the City of Cleveland's comments

Dear Ms. Dodrill:

This is to acknowledge receipt, on behalf of Ohio EPA, of the City of Cleveland's comments dated May 29, 1998 on the Master Metals Engineering Evaluation/ Cost Analysis (EE/CA) Report and Holmden Avenue remediation. The comments were received in this office by facsimile on May 29, 1998, and through the U.S. mail on June 3, 1998. Ohio EPA's responses are provided below.

Comment #1: Ohio EPA has provided comments on May 29, 1998 to U.S. EPA and the Respondents to the Master Metals Order, through their consultants, ENTACT, on the issues of concern associated with Alternative 2. A copy of this comment letter is attached to this letter for your information. Although the 2 feet of clean soil cover proposed is acceptable in terms of safeguarding human health, Ohio EPA has suggested evaluation of a modified version of Alternative 2, incorporating a clean soil cover of sufficient depth (4 to 5 feet) to facilitate future reuse of the site. The 4 to 5 feet depth for clean fill has been recommended as being sufficient to install most subterranean utility connections. Please note that, as discussed below, the clean fill depth may need to be evaluated in terms of its impact on future site use (including access planning). A permeable geotextile membrane has also been recommended for placement between the clean soil cover and contaminated soil below to limit inadvertent future mixing. Additional stipulations associated with Alternative 2 are discussed in Section 2.A of the communication to U.S. EPA (attached).

In response to your specific concern regarding sewer lines that might need placement below the clean fill depth (i.e., at 10 to 15 feet below ground surface as indicated in your communication) in the event of site re-use, please be aware that in order to protect human health, the Agency has recommended that all future excavation be conducted in accordance with OAC 3734.02(H), with prior authorization from Ohio EPA. Invasive activities such as pipe trench excavation should thus be effectively controlled, reducing environmental releases. Further, while the Agency is sensitive to your concerns on possible infiltration of the sewer pipes by lead contamination, several requirements have been identified by DERR-CO as necessary for a significant ingress of lead. First, for any significant long-term ingress, the pipe would have to be located below the water table (in the saturation zone). Otherwise, leakage would be limited to brief periods following severe storms, the only time that the vadose zone could get very wet. Given that the water table appears to lie at least six feet below the ground surface, there would probably not be much of a driving force to move water into the pipe. Second, the crack would have to be large to take in a significant volume of water in comparison to the flow inside the pipe. Also, absent a local chemical source that raises or lowers the water pH from neutral, the solubility of lead compounds might be limited. Thus, technically, lead ingress to a pipe through this site soil may not pose a serious problem. Routing sewer lines through areas of lesser levels of contamination is another site-specific option that could be evaluated in the event of re-use. Further, future commercial or industrial development on this site could use state-of-the-art piping and installation practice, such as vitrified clay product, reinforced concrete or polyvinyl chloride plastic pipe materials. All of these, especially the last, would be quite durable and not

prone to cracking.

Any clean cover depth should be evaluated in terms of its effect on future site use. Specifically, the height of the clean fill mound may also need to be factored into site access planning (i.e., a 10 feet mound, for example, over the site could pose access problems and might necessitate a long access ramp for vehicular entry).

Therefore, the resource effectiveness of remediating the entire site to 10 to 15 feet below ground surface also needs to be balanced against the costs identified by the City related to sewer piping and other utility services necessary in the event of future site re-use. Other factors, including whether the area already has an adequate sewer service from existing lines, or if the city (and other utility services) currently have easements for on-property utility construction may need to be factored into the site reuse costs.

Comment #2: With reference to the Operation and Maintenance (O&M) Agreement, at this stage in the process, the specific nature of and magnitude of fiscal responsibility under such an agreement is hypothetical and depends, in part, on the remedial alternative chosen. Please note that remedial alternative 2 recommended in this report as the preferred alternative estimated $9600 for the 30 year O & M. The issue of property ownership may also need to be factored into the process. Communicating any specific information that the City has on prospective purchasers and future use of the site to the Agencies would facilitate factoring this into the remedial alternative chosen, and thus into the O & M costs and technical aspects. Further, the City's request for funds to be placed in escrow to cover the costs of the O & M and covering the costs of negotiating a prospective purchaser agreement will be discussed with U.S. EPA.

The feasibility of a closure that does not involve limitations on excavation and (therefore) does not require an O & M agreement has been responded to above.

Please note that Alternative 4 only discusses treatment of off-site material; on-site contamination is still addressed by asphalt capping. Ohio EPA has provided comments on appropriate disposal of off-site material; on-site asphalt capping, as outlined in Alternative 4 is not acceptable to this Agency.

Comment #3: Ohio EPA has, in the comments attached, requested substantiation of the horizontal off-site limits identified in the remedial alternative proposals. However, in response to your comment that Master Metals was identified in the EE/CA report as the source of airborne lead contamination over a distance of 0.25 miles, please note that the U.S. EPA air monitoring study did not document (soil) contamination up to a distance of 0.25 miles. The study actually concluded that, based on the 4 air monitoring samplers (the furthest of which was located at 490 meters from Master Metals central emission point), ambient lead concentrations decreased sharply with gradient. Ohio EPA requested language modification to clarify some of these issues (see attached comments, Section 3).

With respect to the on-site disposal of contaminated off-site material, in general, Ohio makes a distinction between on-site reconsolidation and on-site placement. Master Metals has been therefore been requested to appropriately dispose of off-site material (see attached comments).

Question 1: No evidence was provided to the Agencies during the investigatory phase that the former West 3rd asphalt plant owned by the City of Cleveland was linked to the Master Metals site. The West 3rd asphalt plant was therefore not identified within the area of investigation of the Master Metals site, and no sampling was conducted under the auspices of the Master Metals Order at this location.

Comment 4: Ohio EPA has generally rejected asphalt covers at remedial enforcement sites owing to concerns related to long term durability. This is discussed in the comments attached (Section 2.B.iii).

Long term ground water monitoring is not contemplated as part of the O&M Agreement based on technical reasons related to the risk posed by this medium, as discussed below.

Question 2: The issues related to ground water contamination have been addressed by the Agencies and are reported in the different reports associated with the site which are available for public review. Briefly, metal concentration in the ground water wells appear to be decreasing with time. MW-02 was also bailed dry, which should be factored into the decision making process. In response to your query about how these levels compare to the drinking water standard, please note that there is no Maximum Contaminant Level (MCL) for lead; rather an exceedance of the Ohio Public Water Supplies "action level" of 15 ppb at the tap (if detected in more than 10% of the samples in a compliance period) is used as the criteria. Numerous factors in the distribution system can also contribute to the lead level in drinking water, and comparisons with ground water levels are perhaps inappropriate from a regulatory perspective. No generic ground water standard for lead is cited in the Voluntary Action Program (VAP) rules; any standards derived would be on a site-specific basis as a function of the response requirements and ground water classification, (which includes a human receptor use component). A provision also exists under the VAP rules for "Urban Source Designation", with reduced response requirements on-site as a function of the ground water classification. Further, as cited in the EE/CA Report, ground water is not currently used as a source of drinking water in the proximity of the Master Metals site.

With response to your query on environmental concerns related to contaminated ground water migration, please be aware that it is difficult to differentiate the lead levels due to the Master Metals site activities from that found in the industrial fill slag on which the facility appears to have been constructed. The EE/CA Report (page 7) refers to reported depositions of this industrial fill throughout the area during industrial development in the early 1900's. Evaluation of the implications of ground water lead levels on the Great Lakes Water Quality Initiative may need to be a function of segregating the differing contribution loads of all sources of lead to the ground water, which does not appear feasible at this site.

Question 3: For Ohio EPA's comments on the lead clean up level for this site, please refer to the comments attached. A streamlined risk assessment is also being conducted by U.S. EPA.

Question 4: Any deed restriction contemplated for the property under the recommended alternative should stipulate a site-specific point of compliance (POC), under which excavation is not permitted, unless with specific permission from Ohio EPA (see the response to Comment #1 that in order to protect human health, all excavation should be conducted in accordance with OAC 3734.02(H)). Subsurface structures construction on site below the POC could be permitted, provided such construction was conducted in accordance with OAC 3734.02(H) and contaminated soil was not made available for chronic exposure to receptors in the soil horizon specified as the zone of compliance.

With response to the City of Cleveland's request to input into deed restriction language, this issue will be discussed with U.S. EPA.

II. Holmden Avenue Site

In keeping with current policy at remedial enforcement sites in the state, the soil was tested for (lead) contamination as a function of contaminant levels and not as a function of depth. The premise for this is that if the soil levels at a certain depth achieved compliance, no further contamination attributable to Master Metals below that depth should be encountered, owing to the surficial nature of the contaminated material dumped. Based on the sampling data provided in the report, the site achieved compliance with the remediation goal (400 ppm lead) at the grids/ depths sampled. The section of the report on the site restoration activities provides additional detail on subgrading activities, and the depths of fill (10-12") and top soil (4"- 6") placed on-site. No technical justification of additional vertical sampling to 10 feet to

document non-contamination appears possible at this stage.

Please let me know if I can clarify any of my comments. Please be assured that Ohio EPA will continue to evaluate any input from the City of Cleveland in the process at the Master Metals site, as appropriate.

Sincerely,

Sheila Abraham, Ph.D.
Environmental Specialist III

cc: Rod Beals/ Bob Princic, DERR-NEDO
Tim Christman, DERR-CO
Tim Kern, AG's Office
Dave Wertz, DHWM-NEDO